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10/816,935

04/05/2004

Hideya Seki

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ALEXANDRIA, VA 22320

EXAMINER

KOVAL, MELISSA J

ART UNIT

PAPER NUMBER

2862

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/816,935

Applicant(s)

SEKI ET AL.

Examiner

Melissa J. Koval

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on June 26, 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5, 23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/19/2007 & 7/13/2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed June 26, 2007 have been fully considered but they are not persuasive.

The Office Action filed on January 29, 2007 is repeated below for Applicant's convenience. The Examiner's remarks follow:

### ***Claim Rejections - 35 U\$C § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstyn et al. U.S. Patent 6,511,186 B1 in view of Turushima U.S. Patent 6,575,581 B2).

Claim 5 sets forth: "A rear-type projector comprising (See Figure 5a of '186 B1.

Also see BACKGROUND OF THE INVENTION of Burstyn et al. '186 B1.):

a laser beam source that outputs a laser beam that is modulated based on an image signal (See laser 324 of '186 B1.);

a scanning unit that scans the laser beam within a predetermined surface (See column 4, line 21 wherein the teaching of the scanning projection system 320 begins of '186 B1.);

a screen to which the laser beam is projected from a backside of the screen (See viewing screen 338 of '186 B1.);

a light source unit for screen monitoring that emits invisible light for monitoring the screen (See Figures 1 and 2 of Turushima '581 B2. Also see laser beam source 1 and detection wave source 5 of '581 B2. See column 4, lines 21 through 27.);

a screen monitoring unit that receives the invisible light reflected from the screen (See reflection wave sensor 6 of '581 B2. );

a beam light supply stopping unit that controls the laser beam source so as to stop output of the laser beam based on an output of the screen monitoring unit (See column 5, lines 14 through 21, of '581 B2 for example.) ; and

a housing that covers an optical path from the laser beam source to the backside of the screen."

Burstyn et al. '186 B1 teaches all of the elements of claim 1, except Burstyn et al. '186 B1 do not specifically show "a light source unit for screen monitoring that emits invisible light for monitoring the screen; a screen monitoring unit that receives the invisible light reflected from the screen; a beam light supply stopping unit that controls the laser beam sources so as to stop output of the laser beam based on an output of the screen monitoring unit; and a housing that covers an optical path from the laser beam source to the backside of the screen."

Burstyn et al. '186 B1 does employ focus and aim device 342 that operates depending on the state of the screen, but the teaching is silent as to the on and

off operation of the light source depending on the state of the screen.

Means for detecting invisible light as reflected from a screen and then using the detected invisible light to turn a laser light source off and on are well known in the art as shown by Turushima U.S. Patent 6,575,581 B2 and described in the rejection above. The presence of a housing is implied for both references.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rear projection system of Burstyn et al. '186 B1 to include an infrared detection system as that shown by Turushima U.S. Patent 6,575,581 B2, thus meeting the limitations of claim 1. The motivation for one having ordinary skill in the art to make such a modification would be to improve the safety of the device for any observer.

With respect to claim 23, see column 4, lines 32 through 42, in view of the above remarks.

With respect to claims 25 and 26, see columns 5 through 7. Particularly with respect to claim 26, a differential is discussed in column 6, lines 58 through 64, and column 7, lines 1 through 15.

#### ***Allowable Subject Matter***

Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Each and every limitation of claim 24 in combination is required to patentably distinguish the claim over the prior art of record.

### ***EXAMINER'S REMARKS***

Pages 1, 2 and the first two paragraphs of page 3 of applicant's remarks filed June 26, 2007 are a summary of the examiner's rejection filed in the Office Action of January 29, 2007.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an intruding obstacle between the object lens, the projector and display screen, see page 3, paragraph 3 of applicant's remarks.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant then states in paragraph 4, of page 3, that "In view of at least the foregoing, claim 5 is not obvious from the combination of Turushima and Burstyn, because the combination is impossible and/or impractical." No specific evidence is given pointing to particular limitations existing in claim 5 that prevents the combination of references.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

A person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.

Furthermore, the claim would have been obvious because a person of ordinary skill in the art would have been motivated to combine the prior art achieve the claimed invention and that there would have been a reasonable expectation of success.

Applicant's comments in paragraph of 2 do not include the potential presence of a projector operator or maintenance individual as an obstacle. Again the claim language does not point to a viewer or audience member as a limitation.

Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains' ". *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determination including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). See also *KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls."). The Court in *Graham* further noted that evidence of secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., "might be utilized to give light to the circumstances surrounding the origin of the subject matter

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sought to be patented.” 383 U.S. at 18, 148 USPQ at 467. “if a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under §103.” KSR, 127 S. Ct. at 1734, 82 USPQ2d at 1391.

The mere existence of differences between the prior art and the claim does not establish nonobviousness. *Dann v. Johnston*, 425 U.S. 219, 230, 189 USPQ 257, 261 (1976). The issue is “whether the difference between the prior art and the subject matter in question “is a difference sufficient to render the claimed subject matter unobvious to one skilled in the applicable art.” *Dann*, 425 U.S. at 228-29, 189 USPQ at 261 (citation omitted). To be nonobvious, an improvement must be “more than the predictable use of prior art elements according to their established function.” KSR, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

In KSR, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* At 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the obviousness”). However, “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill would employ.” *Id.* The court cautioned that “[a] factfinder should be aware, of course, of the distinction caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *Id.* At 1742, 82 USPQ2d at 1397.

The court noted that “[in] many fields it may be that there is little discussion of obviousness techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends.” KSR, 127 S. Ct. at 1741, 82 USPQ2d at 1396. “Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* At 1742, 82 USPQ2d at 1397. The Court also noted that “[c]ommon sense teaches...that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *Id.* At 1742, 82 USPQ2d at 1397. “A person of ordinary skill is also a person of ordinary creativity, not an automation.” *Id.*

Furthermore, the Supreme Court explained that “{w}hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.” KSR, 127 S. Ct. at 1742, 82 USPQ2d at 1397. “If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense,” *id.* And, in such an instance “the fact that a combination was obvious to try might show that it was obvious under §103” *id.*

The level of ordinary skill in the art may be evidenced by the prior art references. In *re GPAC Inc.*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (fed. Cir. 1995) (“Although the Board did not make a specific finding on skill level, it did conclude that



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the level of ordinary skill in the art...was best determined by appeal to the references of record....We do not believe that the Board clearly erred in adopting this approach.”); see also *In re Oelrich*, 579 F.2d 86, 91, 198 USPQ 210, 214 (CCPA 1978) (“the PTO usually must evaluate both the scope and content of the prior art and the level of ordinary skill solely on the cold words of the literature”).

In sustaining a multiple reference rejection under 35 U.S.C. §103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. In *re Bush*, 296 F. 2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); in *re Boyer*, 363 F. 2d 455, 458 n. 2, 150 USPQ 441, 444 n.2 (CCPA 1966).

During examination of patent application, a claim is given its broadest reasonable construction consistent with the specification. In *re Prater*, 415 F.2d. 1393, 1404-05, 162 USPQ 541, 550-51, (CCPA 1969). “[T]he words of a claim ‘are generally given their ordinary and customary meaning.’ ”

*Phillips v. AWH Corp.*, 415 F. 3d 1303, 1312, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (en banc) (internal citations omitted). The “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* At 1313, 75 USPQ2d at 1326.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on (571) 272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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